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UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address COMMISSI INER OF PATENTS AND TRADEMARKS Washington, D.C., 29231 www.uspto.gov

| APPLICATION NO  | FILING DATE | FIRS1 NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09.426.548  | 10 22 1999  | DAVID ROBBINS        | DEX-0054            | 2041             |
| 75  | 01.14.2003  |                      |                     |                  |
| JANE MASSEY LICATA<br>66 E MAIN STREET<br>MARLTON, NJ 08053 |             |                      | EXAMINER            |                  |
|   |             |                      | WOITACH, JOSEPH T   |                  |
|   |             |                      | ARI UNIT            | PAPER NUMBER     |
|   |             |                      | 1677                | Α .              |

Please find below and/or attached an Office communication concerning this application or proceeding.

## Application No.

09/426,548

Joseph Woitach

Applicant(s)

Examiner

Art Unit

Robbins et al.

1632



# Office Action Summary

|   | The MAILING DATE OF this communication appears (   | on the cover sheet with the correspondence address  |  |
|---|--|---|--|
| Period for  | • •  | TO EVENOS - 2 MONTHYOLEDOM  |  |
|   | RTENED STATUTORY PERIOD FOR REPLY IS SET<br>ILING DATE OF THIS COMMUNICATION.  | TO EXPIRE MONTH(S) FROM   |  |
|   |  | no event, however, may a reply be timely filed after SIX (6) MONTHS from the                                    |  |
|   | te of this communication.<br>od for reply specified above is less than thirty (30) days, a reply within th   | e statutory minimum of thirty (30) days will be considered timely.  |  |
| If NO perio   | od for reply is specified above, the maximum statutory period will apply a   | nd will expire SIX (6) MONTHS from the mailing date of this communication.                                      |  |
|   | reply within the set or extended period for reply will, by statute, cause th<br>received by the Office later than three months after the mailing date of the |   |  |
| _   | ent term adjustment. See 37 CFR 1.704(b).  |   |  |
| Status  | aspansive to communication(s) filed on May 1, 20   | 03  |  |
|   | his action is <b>FINAL</b> . 2b) $\overline{X}$ This action  | 02  |  |
|   |  |   |  |
|   | ince this application is in condition for allowance e<br>osed in accordance with the practice under <i>Ex pai</i>  | except for formal matters, prosecution as to the merits is attention of the Quayle, 1935 C.D. 11; 453 O.G. 213. |  |
| Disposition   | n of Claims  |   |  |
| 4) X C  | aim(s) 2, 3, and 9   | is/are pending in the application.  |  |
| <b>4</b> a)   | Of the above, claim(s)   | is/are withdrawn from consideration.  |  |
| 5) 🗀 CI   | laim(s)  | is/are allowed.   |  |
| 6) 💢 C  | laim(s) 2, 3, and 9  | is/are rejected.  |  |
| 7) CI   | laim(s)  | is/are objected to.   |  |
| 8) 🗀 CI   | aims   | are subject to restriction and/or election requirement.   |  |
| Applicatio  | n Papers   |   |  |
| 9) TI   | he specification is objected to by the Examiner.   |   |  |
| 10) T   | he drawing(s) filed on is/are  | a) accepted or b) objected to by the Examiner.  |  |
|   | Applicant may not request that any objection to the d  |   |  |
|   |  | is: a) approved b) disapproved by the Examiner  |  |
|   | f approved, corrected drawings are required in reply t   |   |  |
|   | he oath or declaration is objected to by the Exami   |   |  |
|   | nder 35 U.S.C. §§ 119 and 120  |   |  |
|   | cknowledgement is made of a claim for foreign pr   | iority under 35 LLS C § 119(a)-(d) or (f)   |  |
|   | All b) Some* c) None of:   | 10/11ty 4/100/ 33 0.0.0. 3 11/3(4) (4) 0/ (1).  |  |
|   | Certified copies of the priority documents have  | o hoon received   |  |
| 2.  | : Certified copies of the priority documents have  |   |  |
|   |  |   |  |
| 3.<br>*See  | application from the International Burea the attached detailed Office action for a list of the   |   |  |
|   | cknowledgement is made of a claim for domestic   |   |  |
|   | The translation of the foreign language provisiona   |   |  |
|   | cknowledgement is made of a claim for domestic   |   |  |
| Attachment  |  | F = 1, First FF 012121 00 120 010101 12 11  |  |
| 1) Notice of References Cited (PTO-892)                     |  | 4) Interview Summary (PTO-413) Paper No(s).   |  |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) |  | 5) Notice of Informal Patent Application (PTO-152)  |  |
| 3) Inform   | nation Disclosure Statement(s) (PTO-1449) Paper No(s).   | 6) Other:   |  |
|   |  |   |  |

Application/Control Number: 09/426,548 Page 2

Art Unit: 1632

### Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 1, 2002, paper number 25, has been entered.

#### **DETAILED ACTION**

This application claims benefit to provisional application 60/105,180, filed October 22, 1998.

Applicants amendment filed November 1, 2002, paper number 27 has been received and entered. Claim 9 has been amended. Claims 2, 3 and 9 are pending and currently under examination.

## Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Application/Control Number: 09/426,548 Page 3

Art Unit: 1632

Claims 2, 3 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, claim 9 is vague and indefinite in the recitation of an 'oligonucleotide probe hybridizing' because the specific conditions for hybridization are not clearly set forth in the claim or defined in the specification. The metes and bounds of the claim are indefinite because on oligonucleotide under various hybridization conditions may or may not meet the limitations of the claims. For example, a 7 base pair oligonucleotide which specifically binds to a particular sequence at low stringency conditions would not bind at high stringency conditions. Because no specific hybridization conditions are set forth, the metes and bounds of the claims can not be determined because the extent of homology can not be defined. Claims 2 and 3 are included in the basis of the rejection because the depend on the use of the oligonucleotides of claim 9 and do not further clarify the basis of the rejection.

# Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who

Application/Control Number: 09/426,548 Page 4

Art Unit: 1632

has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 2, 3 and 9 stand rejected under 35 U.S.C. 102(b) as being anticipated by Weber *et al*.

Claim 9 has been amended to delete [hMLH mutant 2] which was anticipated by cited reference. With respect to the remaining mutations, Applicants argue that Weber *et al.* do not specifically teach hMLH1 mutant 1, hMSH2 mutant 1, hMSH2 mutant 2 and hMSH2 mutant 3 and thus claims 2 and 3 cannot be anticipated since these mutations are not taught. Applicants arguments have been fully considered but not found persuasive.

As discussed above in the 112, second paragraph rejection the metes and bounds of the specific oligonucleotide encompassed by claim 9 and used in the methods of claims 2 and 3 can vary depending on the specific hybridization conditions one may use. Further, claims 2 and 3 encompass the method of screening the DNA sample, however since a the screening does not involve specifically screening for a specific mutation, the presence or the absence of a mutation is indicative of the screening method. Weber *et al.* teach a method and the appropriate primers to do genomic sequencing of MLH1 and MSH2, and detect mutations predictive of heredity nonpolyposis colorectal cancer (whole document, particularly Table 1 and 2). Therefore, the claim is anticipated by Weber *et al.* 

Application/Control Number: 09/426,548

Page 5

Art Unit: 1632

Claims 2, 3 and 9 stand rejected under 35 U.S.C. 102(e) as being anticipated by Liskay et al.

Claim 9 has been amended to delete [hMLH mutant 2] which was anticipated by cited reference. With respect to the remaining mutations, Applicants argue that Liskay et al. do not specifically teach hMLH1 mutant 1, hMSH2 mutant 1, hMSH2 mutant 2 and hMSH2 mutant 3 and thus claims 2 and 3 cannot be anticipated since these mutations are not taught. Applicants arguments have been fully considered but not found persuasive.

As discussed above, claims 2 and 3 encompass the method of screening the DNA sample, however since a the screening does not involve specifically screening for a specific mutation, the presence or the absence of a mutation is indicative of the screening method. Liskay et al. teach a method and the appropriate primers for the detection of mutations in MLH1 and MSH2 which are associated and predictive of heredity nonpolyposis colorectal cancer (whole document and in particular figure 1, and sequences of figures 2-5, 13-16). Therefore, the claim is anticipated by Liskay *et al*.

#### Conclusion

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Woitach whose telephone number is (703)305-3732.

Application/Control Number: 09/426,548

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Art Unit: 1632

Page 6

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Reynolds, can be reached at (703)305-4051.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group analyst Dianiece Jacobs whose telephone number is (703) 308-2141.

Papers related to this application may be submitted by facsimile transmission. Papers should be faxed via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CM1 Fax Center numbers are (703)308-4242 and (703)305-3014.

Joseph T. Woitach

DEBORAH CROUCH
PRIMARY EXAMINER
GROUP 1800/630